

**Fire Stop Material for 1½ Hour Multi-Blade
Fire Dampers (DFD series) and
1½ Hour Combination Fire Smoke Dampers-
Vertical Mount (FSD Series)**

Refer to:

'Installation Instruction for FSD-xxx, DFD-xxx, and SSFSD-xxx series Fire and Combination Fire Smoke Dampers (Part #481318) for additional details.

These instructions apply to 1½ hour rated combination fire smoke dampers and dynamic rated multi-blade fire dampers mounted in masonry, block, metal or wood stud walls. Specific requirements in these instructions are mandatory. These instructions meet the requirements of UL 555.

Installation shall comply with the requirements of NFPA 90A (Standard for the Installation of Air Conditioning and Ventilating Systems) and UL Classification R13317.

Fire and combination fire smoke dampers up to a maximum size of 72 in. W x 96 in. H (1828 mm x 2438 mm) may be installed as instructed below.

- 1) Expansion Clearance - Fire damper and sleeve assemblies expand during periods of intense heat. Therefore, it is essential that openings in walls or floors be larger than the fire or combination fire smoke damper and sleeve assembly to allow for this expansion. Minimum clearances required between the outside of fire and combination fire smoke damper sleeve assemblies and wall openings are:

- Galvanized steel fire dampers and sleeves: ⅛ in. (3 mm) per foot of damper width and height with a minimum clearance of ¼ in. (6 mm), maximum of 1½ in. (38 mm). Recommended clearances, for width and/or height dimensions of:
 - 1) 48 in. (1219 mm) or less: ½ in. (13 mm) clearance
 - 2) More than 48 in. (1219 mm) and 96 in. (2438 mm) or less: 1 in. (25 mm) clearance
 - 3) More than 96 in. (2438 mm): 1½ in. (38 mm) clearance
- Stainless steel combination fire smoke dampers and stainless steel or galvanized sleeves: ⅜ in. (4.7 mm) per foot of damper width and height with a minimum clearance or ¼ in. (6 mm), maximum of 2 in. (51 mm).

Recommended clearances, for width and/or height dimensions of:

- 1) 48 in. (1219 mm) or less: ¾ in. (19 mm) clearance

- 2) Packing (optional) - Polyethylene backer rod, recessed from surfaces of wall to accommodate the required thickness of fill material.
- 3) Fill Material - Hilti Corporation - FS-One fire stop caulk applied to a minimum ⅝ in. (16 mm) thickness within the annular space and flush with both surfaces of the wall with a 1 in. (25 mm) overlap onto the gypsum board. If the damper/sleeve assembly comes into contact with the wall, a minimum of ⅜ in. (10 mm) diameter bead shall be applied to the interface between the sleeve and contact surface. Firestop should be installed according to manufacturers instructions and firestop instructions given in the 2013 UL Fire Resistance Directory Volume 2B, page 4471.
4. Retaining clip - Retaining clip 1 in. x 2 in. x 2 in. x 16 gauge (25 mm x 51 mm x 51 mm x 1.5 mm) is attached to one side of the wall with 1½ in. (38 mm) long #8 sheet metal screws or masonry screws in the masonry wall. The 1 in. (25 mm) leg of the clip shall be attached to the damper sleeve with ½ in. (13 mm) long #10 sheet metal screws. The retaining clips are required to be spaced a maximum of 6 in. (152 mm) from the top of the sleeve and spaced a maximum of 12 in. (305 mm) on center on the sides of the unit only.

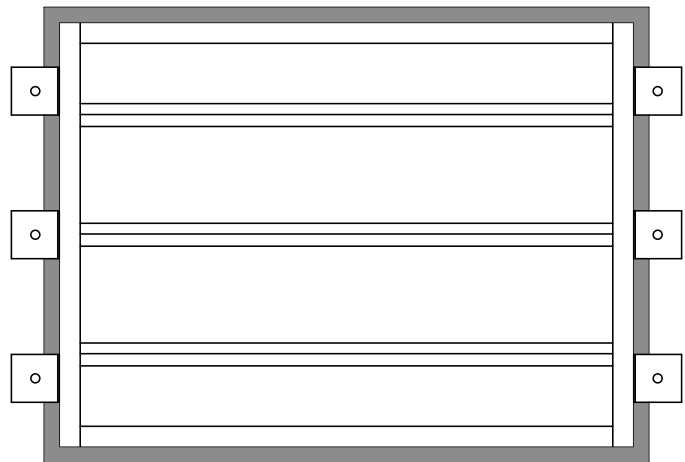


Figure 1

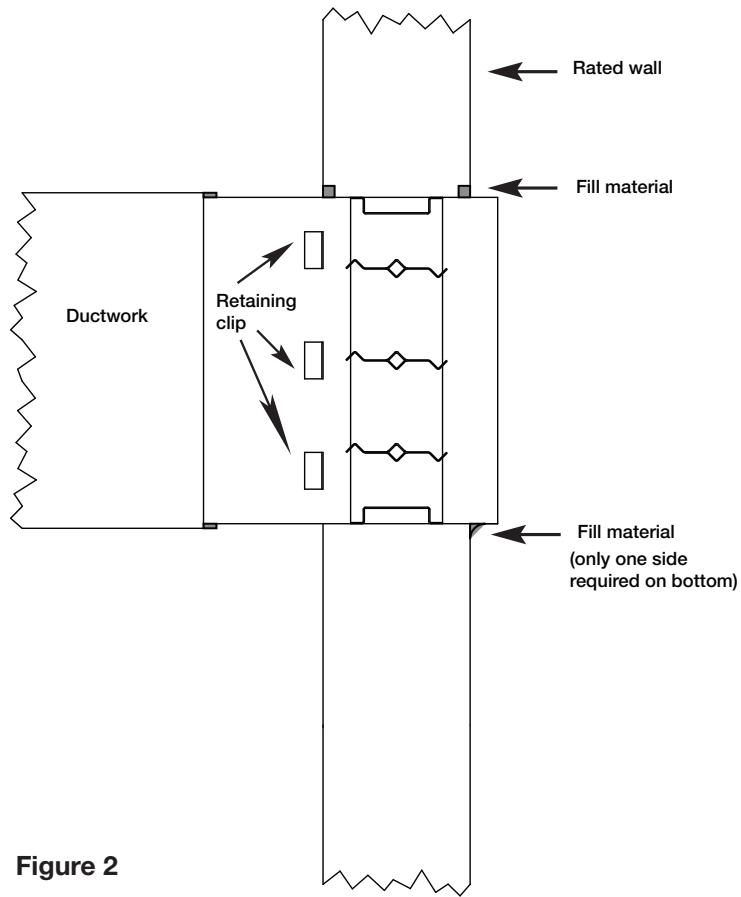


Figure 2

Our Commitment

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